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PATENT APPLICATION
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IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Huey Ly

Confirmation No: 3079

Application No: 09/510,747

Examiner: William H. Wood

Filing Date: February 22, 2000

Group Art Unit: 2124

SUBJECT: DEPLOYED AGENT USED IN THE INSTALLATION AND MAINTENANCE OF SOFTWARE

COMMISSIONER FOR PATENTS
P.O. Box 1450
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SIR:

APPEAL BRIEF

Appellant herein sets forth his reasons and arguments for appealing the Examiner's final rejection of claims in the above-identified case.

REAL PARTY IN INTEREST

This Patent Application has been assigned to Hewlett-Packard Development Company, L.P., a Texas Limited Partnership having it principal place of business in Houston, Texas.

RELATED APPEALS AND INTERFERENCES

Appellant is aware of no related appeals or interferences.

STATUS OF CLAIMS

Claims 1 through 7 and 9 through 21 are extant in the case.

Claim 8 has been canceled.

Claims 1 through 7 and 9 through 21 are rejected.

The appealed claims are claims 1 through 7 and 9 through 21.

STATUS OF AMENDMENTS

After the final rejection, Appellant filed a Response to Office Action dated September 1, 2003. In the Response to Office Action, no amendments were made to the claims.

SUMMARY OF THE INVENTION

The present invention concerns deployment of software to desktop computers and pertains particularly to a deployed agent used in the installation and maintenance of software. See the Specification at page 1, lines 5 through 8. Maintaining applications installed on individual computers is complicated. For example, it is difficult to ensure sufficient access and privilege to manage, from a central location, different applications residing in many computers. See the Specification at page 1, lines 18 through 24.

In embodiments of the present invention, a managing computer (20) manages applications residing on a managed computer (21-24). An agent (10) is forwarded from the managing computer (20) to the managed computer (21-24). See Figure 1 and the Specification at page 5, lines 11 through 16. The

agent (10) runs on the managed computer (21-24). The agent (10) maintains specified applications residing on the managed computer (21-24). The agent (10) also performs requests made by the managing computer (20). See Figure 2 and the Specification at page 5, lines 17 through 25.

For example, the agent (10) detects lost network connections. The agent (10) also monitors network connection speed between the managed computer (21-24) and the managing computer (20) to determine a best time to transfer data from the managing computer (20) to the managed computer (21-24). See Figure 3 and the Specification at page 6, lines 12 through 16.

In one embodiment, the agent (10) stops all network applications on the managed computer (21-24) when the network connection speed is below a predetermined threshold. See the Specification at page 3, lines 12 through 14. The agent (10) also can monitor the integrity of specified applications within the managed computer (21-24) to ascertain when repair is needed. See Figure 3 and the Specification at page 13 through 15. The agent (10) also downloads and installs specified applications from the managing computer (20) to the managed computer (21-24). See the Specification at page 5, lines 19 through 22.

The agent (10) monitors communications from the managed computer (21-24) to determine when the managed computer (21-24) desires the agent (10) to take a requested action. The requested action can be, for example, to uninstall an application, to stop an application or to upgrade an application. See Figure 2 and the Specification at page 5, lines 17 through 25, and at page 8, lines 1 through 29.

The present invention greatly simplifies the maintenance, from a central location, of applications distributed on many different computer systems.

ISSUES PRESENTED FOR REVIEW

The following issue is presented for review:

(1) whether under 35 U.S.C. § 103 (a) claims 1 through 7 and 9 through 21 are unpatentable over USPN 6,125,390 (*Touboul*) in view of USPN 6,0035,423 (*Hodges*) and in further view of USPN 5,822,543 (*Dunn*).

GROUPING OF CLAIMS

The claims 1 through 7 and 9 through 21 do not stand or fall together. The claims 1 through 7 and 9 through 21 are divided into 3 groups. The first group contains claims 1 through 10. The second group contains claims 11 through 20. The third group contains claim 21.

In the argument section below, Appellant points out why the claims of each group are separately patentable. In short, each of the claim groups includes at least one independent claim. Each of the independent claims sets out subject matter that is not disclosed or suggested by the cited art. The independent claims in each grouping of claims set out a different combination of elements than the independent claims in each of the other groups. Each group of claims is therefore separately patentable over the cited prior art.

ARGUMENT

A. Overview Specifying Errors in the Rejection of the Claims

The U.S. Patent and Trademark Office has set forth a methodology for establishing a *prima facie* case of obviousness. Specifically, three basic criteria must be met.

> First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

See MPEP 706.02 (j).

The Examiner has failed to establish a *prima facie* case of obviousness for the claims extant in the present case because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings as suggested by the Examiner.

Further, in regards to the apparatus claims (claim 11 through 20) the Examiner has failed to show that the prior art references teach or suggest all the claim limitations.

B. Brief Description of *Touboul*

Touboul discloses a method and apparatus for monitoring and controlling in a network. The objects of the invention disclosed within *Touboul* include providing a network maintenance system which can identify

failures of programs running on network workstations and take the appropriate corrective action to correct the problems that led to those failures and include providing a system which can correct problems on workstations within a network by sending procedures to agents active on the workstations, each procedure consisting of one or more actions to be taken. See column 1, line 61 through column 2, line 3.

C. Brief Description of *Hodges*

Hodges discloses a method and system for providing automated updating and upgrading of antivirus applications using a computer network.

D. Brief Description of *Dunn*

Dunn discloses the gathering of data handling statistics in non-synchronous data communication networks. *Dunn* indicates that a timing script could be provided in a preselected script language and transmitted along with an "applet" (mini-application) that: self installs at the client station; then executes automatically without dependence upon any program resident at that station; and ultimately is discarded after the associated data is discarded by the client station. See column 8, lines 42 through 48.

E. Discussion of Group 1 claims (claims 1 through 10)

1. Stated Rationale for Rejection of Independent Claim 1

Claim 1 sets out a method by which a managing computer manages applications residing on a managed computer. In step (a), an agent from the

managing computer is forwarded to the managed computer. The agent, upon arriving at the managed computer, installs itself on the managed computer and maintains specified applications residing on the managed computer. The maintenance includes making updates to the specified applications when new versions of the specified applications are available on the managing computer. This functionality is not disclosed or suggested by the cited art.

The Examiner has argued that various parts of claim 1 are disclosed in three references.

The Examiner asserts *Touboul* discloses a managing computer managing applications residing on a managed computer, but does not teach an agent, upon arriving at the managed computer, installing itself on the managed computer and maintaining specified applications residing on the managed computer. See the Office Action dated July 2, 2003 (Paper Number 8) at page 2, lines 17 through 20 and at page 3, lines 5 through 8. *Touboul* also does not teach that maintenance includes making updates to the specified applications when new versions of the specified applications are available on the managing computer.

The Examiner asserts that *Hodges* discloses maintaining software and making updates as necessary. The Examiner however indicates that neither *Touboul* nor *Hodges* discloses forwarding an agent from a managing computer to a managed computer, and neither reference discloses the agent installing itself on the managed computer. See the Office Action dated July 2, 2003 (Paper Number 8) at page 3, lines 5 through 8.

The Examiner asserts that *Dunn* discloses the ability of code to self install.

The Examiner has failed to establish a *prima facie* case of obviousness for claim 1 because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings as suggested by the Examiner.

2. Errors made by the Examiner in the stated rationale for the Rejection

a. Not Obvious to Combine *Touboul* and *Hodges*

The Examiner has argued as follows:

> It would have been obvious to one of ordinary skill in the art at the time of invention to implement *Touboul*'s agents with software updating as found in *Hodges*' teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to shift useful functionality to an automated agent in order to decrease burden on the network administration. In the case of virus prevention software of *Hodges*, this means the user and the network administration are required to do less yet maintain an acceptable level of virus protection.

See the Office Action dated July 2, 2003 (Paper Number 8) at page 2, line 22 through page 3, line 4.

The Examiner has argued that one of ordinary skill in the art would be motivated to shift useful functionality to an automated agent in order to decrease burden on the network administration. However, the Examiner has failed to cite any art where this motivation is taught or suggested. Neither *Touboul* nor *Hodges* teach that it would be desirable "to shift useful

functionality to an automated agent in order to decrease burden on the network administration". Neither *Touboul* nor *Hodges* teach there is any need to decrease burden on the network administration. Neither *Touboul* nor *Hodges* teach that if there were a burden on the network administration the way to alleviate the burden would be to shift useful functionality to an automated agent. This information is available only from a reading of Appellant's disclosure. It is an improper reconstruction when the motivation to combine references is available only from knowledge gleaned from Appellant's disclosure.

b. Not Obvious to Combine *Touboul* and *Dunn*

The Examiner has argued that it would be obvious to implement *Touboul*'s agent software with "self installation" and being sent from the managing computer as found in *Dunn*'s teaching as a person of ordinary skill in the art would be motivated to make use of software which is self-contained and self reliant. See the Office Action dated July 2, 2003 (Paper Number 8) at page 3, lines 12 through 14.

However, the Examiner's stated rationale for combination of the *Touboul* and *Dunn* to show obviousness as the modification suggested by the Examiner would have the effect of destroying the invention upon which *Touboul* is based.

The courts have indicated that a modification of a reference which results in destroying that on which the invention of the reference is based

should not serve as a foundation for a rejection under 35 U.S.C. § 103. See, for example, *Ex parte Hartmann*, 186 U.S.P.Q. 366, 367 (PTO Bd. App. 1974).

Touboul specifically states that it is an object of his invention to provide a system which allows automatic discovery of agents. See, for example, column 2, lines 16, 17. Automatic discovery of agents is also an element of claims 2, 3, 5, 6, 9 and 10 of *Touboul*.

Modifying *Touboul* as suggested by the Examiner, to implement *Touboul*'s agent software with "self installation" and being sent from the managing computer as found in *Dunn*'s teaching would effectively destroy the basis for automatic discovery of agents in *Touboul*. This is because, the modification suggested by the Examiner would result in new agents being sent to a managed workstation rather than existing agents being discovered on a managed workstation. Such a modification of *Touboul* as suggested by the Examiner would have the effect of destroying the invention (e.g., discovering existing agents on workstations) upon which *Touboul* is based. This is not an obvious modification of *Touboul*.

The Examiner has argued that "automatic discovery of agents" does not overcome "self installation". See the Office Action dated July 2, 2003 (Paper Number 8) at page 8, lines 15 through 18. This seems to be misunderstanding of the point made by Appellant.

In *Touboul*, a system controlling a plurality of workstations "discovers" agents on managed workstations. This is a fundamental part of the invention of *Touboul*.

In claim 1 of the present case, the managing computer does not "discover" an agent on a managed computer. Rather, the managing computer forwards an agent to the managed computer. The agent is not an existing agent that is "discovered", but a new agent that is "sent".

Discovering an existing agent on a managed computer is significantly different then sending an agent to a managed computer.

The Examiner has suggested that in light of *Dunn*, it would be obvious to modify *Touboul* so that agents are sent to managed workstations. See the Office Action dated July 2, 2003 (Paper Number 8) at page 3, lines 9 through 12. Thus the Examiner has suggested modifying *Touboul* so that new agents are now "sent" rather than existing agents on workstations being "discovered". This modification would result in destroying subject matter within *Touboul* on which the invention of *Touboul* is based. Such a modification of a reference which results in destroying that on which the invention of the reference is based should not serve as a foundation for a rejection under 35 U.S.C. § 103.

c. Piecemeal Reconstruction of Claims Does Not Show Obviousness

In essence, the Examiner has attempted to, in a piecemeal fashion, reconstruct the limitations of claim 1. That is, the Examiner has asserted *Touboul* discloses a managing computer managing applications residing on a managed computer, *Hodges* discloses maintaining software and making updates as necessary, *Dunn* discloses the ability of code to self install. Using claim 1 as a framework, a person of skill in the art could combine these

selected teachings from these references into something similar to the subject matter set out in claim 1.

However, piecemeal reconstruction of prior art patents in the light of an applicant's disclosure is not a basis for a holding of obviousness under 35 U.S.C. § 103. *In re Kamm and Young*, 452 F.2d 1052, 172 U.S.P.Q. 298, 301 (C.C.P.A. 1972). It is impermissible to use the claims as a frame and the prior-art references as a mosaic to piece together a facsimile of the claimed invention. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q. 2d 1434 (Fed. Cir. 1988).

In order to show obviousness, the Examiner must provide a sufficient suggestion in the prior art (not in Appellant's Specification) for any suggested combination. Specifically, for a rejection under 35 U.S.C. § 103, the prior art must provide a motivation or reason for the worker in the art, without the benefit of the appellant's specification, to make the necessary changes in the reference device. See *Ex parte Chicago Rawhide Manufacturing Co.*, 226 U.S.P.Q. 438 (PTO Bd. App. 1984). The critical inquiry is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. See *In re Newell*, 891 F.2d 899, 12 U.S.P.Q. 2d 1248, 1250 (Fed. Cir. 1989). Both the suggestion and the expectation of success must be found in the prior art, not in the Appellant's disclosure. *In re Dow Chemical Col.*, 837 F.2d 469, 5 U.S.P.Q. 2d 1529 (Fed. Cir. 1988).

For example, the Federal Circuit has stated that "[o]bviousness cannot be established by combining the teaching of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting

the combination." See *In re Geiger, 815 F.2d 686, 2 U.S.P.Q. 2d 1276,1278 (Fed. Cir. 1987).* This principle applies to all determinations of obviousness including software development.

As stated by the Federal Circuit:

> It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."

In re Fritch, 972 F.2d 1260,23 U.S.P.Q. 2d 1780, 1784 (Fed. Cir. 1992) (quoting In re Fine, 837 F.2d 1071,1075, 5 U.S.P.Q. 2d 1596, 1600 (Fed. Cir. 1988)).

The references cited in the rejection of the present claims, *Touboul, Hodges* and *Dunn,* do not in combination teach the subject matter set out in the claims of present application. That is, a person of ordinary skill in the art would not read these references and as a result be motivated to construct the subject matter set out in Appellant's claims. Rather, the motivations for the combinations suggested by the Examiner reside in Appellant's specification and not in the cited references.

Hindsight reasoning may be used as long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure. *In re McLaughlin,* 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). However, as shown above, the knowledge for the combinations suggested by the Examiner comes not from the cited art, but from Appellant's specification.

For example, nowhere in *Touboul, Hodges* or *Dunn* does it teach that it would be desirable "to shift useful functionality to an automated agent in order to decrease burden on the network administration". None of these cited references teach that there is any need to decrease burden on the network administration. None of the cited references teach that if there were a burden on the network administration the way to alleviate the burden would be to shift useful functionality to an automated agent. This information is available from a reading of Appellant's disclosure. This information is not available from reading the cited references. The Examiner, then, has performed improper reconstruction because the Examiner has used knowledge gleaned only from Appellant's disclosure as the motivation for performing the combinations suggested by the Examiner.

F. Discussion of Group 2 claims (claims 11 through 20)

1. Subject matter within independent claim 11 not disclosed by the cited art

Independent claim 11 sets out an agent running on a managed computer managed by a managing computer. The agent includes an integrity sensor, an action sensor and a main engine.

The integrity sensor monitors integrity of specified applications within the managed computer to ascertain when repair is needed. This functionality is not disclosed or suggested by the cited references. *Touboul*, for example, discusses an administrator attaching one or more triggers to cause an action to be taken. See column 8, lines 43 through 52. However, nothing in *Touboul* discloses or suggests that an agent includes an integrity sensor that monitors

integrity of a specified applications within the managed computer to ascertain when repair is needed.

The main engine maintains the specified applications, wherein maintaining the specified applications includes making updates to the specified applications when new versions of the specified applications are available on the managing computer. This is not disclosed or suggested by the cited references. The combination of the cited references suggested by the Examiner does not disclose or suggest a main engine within an agent that makes updates to specified applications when new versions of the specified applications are available on a managing computer.

2. Errors made by the Examiner in the stated rationale for the Rejection

The Examiner has provided the following rationale for rejecting claim 11:

> In regard to claims 11-16 and 21, the claims represent agent apparatus claims which correspond to the method for operating an agent claims of 1 through 10. Though the limitations are arranged differently they are the same and rejected in view of *Touboul, Hodges* and *Dunn* in combination.

See the Office Action dated July 2, 2003 (Paper Number 8) at page 2, lines 17 through 20.

Essentially, the Examiner has argued the limitations in claim 11 are the same as in claims 1 through 10 only arranged differently. This misses the clear differences between claim 11 and claims 1 through 10.

For example, claim 11 sets out specific structure for an agent running on a managed computer. Particularly, the agent comprises an integrity

sensor, an action sensor and a main engine. The function of each of these elements is specifically elaborated. For example, the integrity sensor monitors integrity of specified applications within the managed computer to ascertain when repair is needed. The main engine maintains the specified applications, wherein maintaining the specified applications includes making updates to the specified applications when new versions of the specified applications are available on the managing computer.

Claims 1 through 10 do not set out that an agent is specifically comprised of an integrity sensor, an action sensor and a main engine. Nor is an agent so comprised necessary to carry out the methods set out by claims 1 through 10. The methods of claims 1 through 10 may be implemented with an agent having a wide variety of structures.

Since, as Appellant has pointed out in the discussion above, the cited art does not disclose anything corresponding to the integrity sensor and the main engine, the Examiner has failed to show that the prior art references teach or suggest all the claim limitations and thus failed to establish a *prima facie* case of obviousness for the rejection of claim 11.

G. Discussion of Group 3 claim (claim 21)

1. Subject matter within independent claim 21 not disclosed by the cited art

Claim 21 sets out a method by which a managing computer manages applications residing on a managed computer. In step (a) of claim 21, an agent is forwarded from the managing computer to the managed computer. Substep (a.1) of claim 21 indicates that the agent maintains specified

applications residing on the managed computer, including making updates to the specified applications when new versions of the specified applications are available on the managing computer. This is not disclosed or suggested by the cited art.

The Examiner has failed to establish a *prima facie* case of obviousness for claim 21 because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings as suggested by the Examiner.

2. Errors made by the Examiner in the stated rationale for the Rejection

The Examiner has provided the following rationale for rejecting claim 21:

> In regard to claims 11-16 and 21, the claims represent agent apparatus claims which correspond to the method for operating an agent claims of 1 through 10. Though the limitations are arranged differently they are the same and rejected in view of *Touboul, Hodges* and *Dunn* in combination.

See the Office Action dated July 2, 2003 (Paper Number 8) at page 2, lines 17 through 20.

While claim 21 is not an agent apparatus claim and does not set out elements exactly corresponding to the elements of any one of claims 1 through 10, claim 21 does set out a method that includes functionality similar to functionality variously set out in claims 1 through 10. This functionality, as a whole, is not disclosed by a combination of *Touboul, Hodges* and *Dunn* as there is no motivation in the cited prior art to combine these references as

suggested by Examiner. That is, the Examiner has failed to establish a *prima facie* case of obviousness for claim 21 because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings as suggested by the Examiner.

a. Not Obvious to Combine *Touboul* and *Hodges*

The Examiner has argued as follows:

> It would have been obvious to one of ordinary skill in the art at the time of invention to implement *Touboul*'s agents with software updating as found in *Hodges*' teaching. This implementation would have been obvious because one of ordinary skill in the art would be motivated to shift useful functionality to an automated agent in order to decrease burden on the network administration. In the case of virus prevention software of *Hodges*, this means the user and the network administration are required to do less yet maintain an acceptable level of virus protection.

See the Office Action dated July 2, 2003 (Paper Number 8) at page 2, line 22 through page 3, line 4.

In the discussion above, Appellant has showed that it would not be obvious to combine *Touboul* and *Hodges* as suggested by the Examiner. As discussed above, the Examiner has argued that one of ordinary skill in the art would be motivated to shift useful functionality to an automated agent in order to decrease burden on the network administration. However, the Examiner has failed to cite any art where this motivation is taught or suggested. Neither *Touboul* nor *Hodges* teach that it would be desirable "to shift useful functionality to an automated agent in order to decrease burden on the network administration". Neither *Touboul* nor *Hodges* teach there is

any need to decrease burden on the network administration. Neither *Touboul* nor *Hodges* teach that if there were a burden on the network administration the way to alleviate the burden would be to shift useful functionality to an automated agent. This information is available only from a reading of Appellant's disclosure. As discussed more fully above, it is an improper reconstruction when the motivation to combine references is available only from knowledge gleaned from Appellant's disclosure.

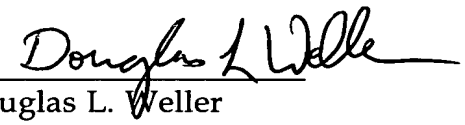
c. Piecemeal Reconstruction of Claims Does Not Show Obviousness

As discussed more fully above, the Examiner has attempted to, in a piecemeal fashion, reconstruct the limitations of the claims. However, piecemeal reconstruction of prior art patents in the light of an Appellant's disclosure is not a basis for a holding of obviousness under 35 U.S.C. § 103. In order to show obviousness, the Examiner must provide a sufficient suggestion in the prior art (not in Appellant's Specification) for any suggested combination. The references cited in the rejection of the present claims, *Touboul, Hodges* and *Dunn*, do not in combination teach the subject matter set out in the claims of present application. That is, a person of ordinary skill in the art would not read these references and as a result be motivated to construct the subject matter set out in Appellant's claims. Rather, as more fully discussed above, the motivations for the combinations suggested by the Examiner reside in Appellant's specification and not in the cited references.

CONCLUSION

For all the reasons discussed above, Appellant believes the rejection of the claims was in error and respectfully requests that the rejection be reversed.

Respectfully submitted,
HUEY LY

By 
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Appendix: Appealed Claims

1. A method by which a managing computer manages applications residing on a managed computer, the method comprising the step of:

(a) forwarding an agent from the managing computer to the managed computer, the agent, upon arriving at the managed computer, performing the following:

(a.1) installing itself on the managed computer; and,

(a.2) maintaining specified applications residing on the managed computer, including:

making updates to the specified applications when new versions of the specified applications are available on the managing computer.

2. A method as in claim 1 wherein in step (a) the agent additionally performs the following:

(a.3) detecting lost network connections.

3. A method as in claim 1 wherein in step (a) the agent additionally performs the following:

(a.3) monitoring network connection speed between the managed computer and the managing computer to determine a best time to transfer data from the managing computer to the managed computer.

4. A method as in claim 1 wherein in step (a) the agent additionally performs the following:

(a.3) monitoring integrity of specified applications within the managed computer to ascertain when repair is needed.

5. A method as in claim 1 wherein in step (a) the agent additionally performs the following:

(a.3) monitoring communications from the managing computer to determine when the managing computer desires the agent to take a requested action.

6. A method as in claim 5 wherein in substep (a.3) the requested action is to uninstall an application.

7. A method as in claim 5 wherein in substep (a.3) the requested action is to stop an application.

9. A method as in claim 1 wherein in step (a) the agent additionally performs the following substeps:

(a.3) monitoring network connection speed between the managed computer and the managing computer; and,

(a.4) stopping all network applications on the managed computer when the network connection speed is below a predetermined threshold.

10. A method as in claim 1 wherein in step (a) the agent additionally performs the following substeps:

(a.3) downloading a specified application from the managing computer to the managed computer; and,

(a.4) installing the specified application.

11. An agent running on a managed computer managed by a managing computer, the agent comprising:

an integrity sensor that monitors integrity of specified applications within the managed computer to ascertain when repair is needed;

an action sensor that monitors communications from the managing computer to determine when the managing computer desires the agent to take a requested action; and,

a main engine that maintains the specified applications, wherein maintaining the specified applications includes making updates to the specified applications when new versions of the specified applications are available on the managing computer.

12. An agent as in claim 11 additionally comprising:

a network speed sensor that monitors network connection speed between the managed computer and the managing computer to determine a best time to transfer data from the managing computer to the managed computer.

13. An agent as in claim 11 wherein the requested action is to uninstall an application.

14. An agent as in claim 11 wherein the requested action is to stop an application.

15. An agent as in claim 11 wherein the requested action is to upgrade an application.

16. An agent as in claim 11 additionally comprising:

a network speed sensor that monitors network connection speed between the managed computer and the managing computer, wherein the main engine stops all network applications on the managed computer when the network connection speed is below a predetermined threshold.

17. Storage media that stores programming code which when run implements an agent running on a managed computer managed by a managing computer, the agent comprising:

an integrity sensor that monitors integrity of specified applications within the managed computer to ascertain when repair is needed;

an action sensor that monitors communications from the managing computer to determine when the managing computer desires the agent to take a requested action; and,

a main engine that maintains the specified applications, wherein maintaining the specified applications includes making updates to the specified applications when new versions of the specified applications are available on the managing computer.

18. Storage media as in claim 17 wherein the agent additionally comprises:

a network speed sensor that monitors network connection speed between the managed computer and the managing computer to determine a best time to transfer data from the managing computer to the managed computer.

19. Storage media as in claim 17 wherein the requested action is on of the following:

an instruction to uninstall an application;

an instruction to stop an application; and,

an instruction to upgrade an application.

20. Storage media as in claim 17 wherein the agent additionally comprises:

a network speed sensor that monitors network connection speed between the managed computer and the managing computer, wherein the main engine stops all network applications on the managed computer when the network connection speed is below a predetermined threshold.

21. A method by which a managing computer manages applications residing on a managed computer, the method comprising the step of:

(a) forwarding an agent from the managing computer to the managed computer:

the agent performing the following:

(a.1) maintaining specified applications residing on the managed computer, including:

making updates to the specified applications when new versions of the specified applications are available on the managing computer, and

(a.2) performing requests made by the managing computer.